Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Please amend claims:

Listing of Claims:

1. (Original) A solution for etching copper or a copper alloy, said solution having a pH on the order of 4 or less, comprising:

a) at least one oxidizing agent selected from the group comprising hydrogen peroxide and peracids and

b) at least one substance selected from the group comprising aromatic sulfonic acids and salts of the aromatic sulfonic acids characterized in that the solution is free of sulfate ions.

2. (Original) The solution according to claim 1, characterized in that it further comprises at least one N-heterocyclic compound.

3. (Original) The solution according to claim 2, characterized in that the concentration of the N-heterocyclic compounds is in the range of from about 0.1 to about 300 g/l.

4. (Currently Amended) The solution according to any one of claims 2 and 3, characterized in that at least one N-heterocyclic compound is selected from the group comprising mono-N, di-N, ~~tn-N~~ tri-N, and tetra-N heterocyclic compounds.

5. (Previously Presented) The solution according to any one of claims 2-3, characterized in that at least one N-heterocycljc compound is selected from the group comprising pyridine, N-methyl pyrrolidone, adenine, guanine, uric acid, imidazole, pyrazole, piperazine, pyrrolidone, pyrroline, triazole, tetrazole and the derivatives thereof.

6. (Previously Presented) The solution according to any one of the preceding claims 1-3, characterized in that the concentration of the substances is in the range of from about 5 to about 250 g/l.

7. (Previously Presented) The solution according to any one of the preceding claims 1-3, characterized in that at least one salt of the aromatic sulfonic acids is selected from the group comprising sodium and potassium salts.

8. (Previously Presented) The solution according to any one of the preceding claims 1-3, characterized in that the aromatic part of at least one aromatic sulfonic acid or of at least one salt of the aromatic sulfonic acids comprises at least one phenyl group.

9. (Original) The solution according to claim 8, characterized in that at least one phenyl group is substituted by one or more radicals selected from the group comprising nitro, amino, hydroxy, halogen, C_1 - C_5-alkyl radicals and C_1 - C_5 alkoxy radicals.

10. (Previously Presented) The solution according to any one of the preceding claims 1-3, characterized in that at least one aromatic sulfonic acid is selected from the group comprising benzene sulfonic acid, phenol sulfonic acid, toluene sulfonic acid, amino benzene sulfonic acid and naphthalene sulfonic acid.

11. (Previously Presented) The solution according to any one of the preceding claims 1-3, characterized in that the solution comprises at least one adjuvant selected from the group comprising polyethylene glycol, polypropylene glycol and the derivatives thereof.

12. (Currently Amended) A method of producing electrical circuit carriers or for the semiconductor technique in vertical and horizontal lines or for producing leadframes in RTR systems or for producing multipoint connectors and contacts in switches, plug and socket connectors, sockets, and plugs comprising etching a copper surface by contacting said copper surface with ~~Use of~~ the solution according to any one of claims 1-3 ~~for producing electrical circuit carriers or for the semiconductor technique in vertical and/or~~

~~horizontal lines or for producing leadframes in RTR-systems or for producing multipoint connectors and contacts in switches, plug and socket connectors, sockets and plugs~~.

13. (Previously Presented) A method for depositing metal to the surface of copper or a copper alloy, said method comprising the following method steps:

a) contacting the surface with the solution in accordance with any one of claims 1-3 and

b) coating the surface with at least one metal.

14. (Original) The method according to claim 13, characterized in that the substrate is selected from the group comprising electrical circuit carriers, leadframes, multipoint connectors and contacts in switches, plug and socket connectors, sockets and plugs.

15. (Previously Presented) The method according to claim 13, characterized in that the substrate is contacted with an acidic cleaning fluid prior to method step a).

16. (Previously Presented) The method according to claim 13, characterized in that the substrate is contacted with sulfuric acid-prior to method step b).

17. (Previously Presented) The method according to claim 13, characterized in that the metal is selected from the group comprising copper, tin, gold, silver, palladium, bismuth and nickel.

18. (Original) The method according to claim 17, characterized in that the metal is electroless nickel-gold or chemical tin.

19. (Previously Presented) The method according to claim 13 for producing electrical circuit carriers or for the semiconductor technique in vertical and/or horizontal lines or for producing leadframes in RTR-systems.